



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-3989; Directorate Identifier 2014-NM-220-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes. This proposed AD was prompted by in-service reports of passenger door tensator spring failures, and qualification testing that determined that non-conforming tensator springs could be susceptible to failure prior to reaching their safe-life limit. This proposed AD would require revising the maintenance or inspection program to incorporate certain temporary revisions, and replacing the passenger door tensator springs with new springs. We are proposing this AD to prevent tensator spring failure, resulting in the inability to open the main passenger door, which could impede evacuation in the event of an emergency.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone: 514-855-5000; fax: 514-855-7401; email: [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3989; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations

office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Fabio Buttitta, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7303; fax: 516-794-5531.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-3989; Directorate Identifier 2014-NM-220-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

**Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-39, dated November 4,

2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

Following the issuance of [Canadian] AD CF-2010-14 [[http://www.wapps3.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/awd-display-cs2101-wnd.asp?rand=&vMode=0&showPdf=False&ovid=CF\\_CF-2010-14\\_0](http://www.wapps3.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/awd-display-cs2101-wnd.asp?rand=&vMode=0&showPdf=False&ovid=CF_CF-2010-14_0)], additional qualification testing of the passenger door tensator spring, Part Number (P/N) GS321-0580-1, determined that the tensator springs could be susceptible to failure prior to reaching the life limit mandated by [Canadian] AD CF-2010-14.

In addition, there have been in-service reports of passenger door tensator spring failures. Investigation determined that the material used to manufacture the tensator springs [was] improperly heat treated.

The passenger door assembly is installed with four tensator springs that assist the door actuator in opening and closing the door. In-service experience has shown that a failed tensator spring could uncoil and foul up the rotating tensator spools, resulting in the inability to open the main passenger door. The inability to open the main passenger door could impede evacuation in the event of an emergency.

This [Canadian] AD mandates the revision to the approved maintenance schedule to reduce the repetitive discard task interval and mandates the replacement of non-conforming tensator springs.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3989.

## **Related Service Information under 1 CFR part 51**

We reviewed the following Bombardier, Inc. service information:

- Bombardier Global 5000 Service Bulletin 700-1A11-52-023, dated October 4, 2013.
- Bombardier Global Express/Global Express XRS Service Bulletin 700-52-046, dated October 4, 2013.
- Temporary Revision (TR) 5-2-7, dated June 4, 2014, to Part 2, Section 5-10-11, of Bombardier Global Express XRS BD-700 Time Limits/Maintenance Checks.
- TR 5-2-10, dated September 9, 2014, to Part 2, Section 5-10-11, of Bombardier Global 6000 GL 6000 Time Limits/Maintenance Checks.
- TR 5-2-13, dated June 4, 2014, to Part 2, Section 5-10-11, of Bombardier Global 5000 BD-700 Time Limits/Maintenance Checks.
- TR 5-2-44, dated June 4, 2014, to Part 2, Section 5-10-11, of Bombardier Global Express BD-700 Time Limits/Maintenance Checks.

The service information describes procedures for replacing passenger door tensator springs with new springs. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in

the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

### **Costs of Compliance**

We estimate that this proposed AD affects 60 airplanes of U.S. registry.

We also estimate that it would take about 40 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$204,000, or \$3,400 per product.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Bombardier, Inc.:** Docket No. FAA-2016-3989; Directorate Identifier 2014-NM-220-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Bombardier, Inc. Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9002 and subsequent.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 52, Doors.

#### **(e) Reason**

This AD was prompted by in-service reports of passenger door tensator spring failures, and qualification testing that determined that incorrect tensator springs could be susceptible to failure prior to reaching their safe-life limit. We are issuing this AD to



prevent tensator spring failure, resulting in the inability to open the main passenger door, which could impede evacuation in the event of an emergency.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Maintenance or Inspection Program Revision**

Within 30 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the task specified in the Temporary Revisions (TRs) identified in paragraphs (g)(1) through (g)(4) of this AD. The compliance time for doing the initial replacement of the passenger door tensator springs with new springs is at the times specified in the applicable TR specified in paragraphs (g)(1) through (g)(4) of this AD, or within 30 days after the effective date of this AD, whichever occurs later.

(1) TR 5-2-7, dated June 4, 2014, to Part 2, Section 5-10-11, of Bombardier Global Express XRS BD-700 Time Limits/Maintenance Checks (for Model BD-700-1A10 airplanes).

(2) TR 5-2-10, dated September 9, 2014, to Part 2, Section 5-10-11, of Bombardier Global 6000 GL 6000 Time Limits/Maintenance Checks (for Model BD-700-1A11 airplanes).

(3) TR 5-2-13, dated June 4, 2014, to Part 2, Section 5-10-11, of Bombardier Global 5000 BD-700 Time Limits/Maintenance Checks (for Model BD-700-1A11 airplanes).

(4) TR 5-2-44, dated June 4, 2014, to Part 2, Section 5-10-11, of Bombardier Global Express BD-700 Time Limits/Maintenance Checks (for Model BD-700-1A10 airplanes).

**(h) No Alternative Actions and Intervals**

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) and intervals may be used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) of this AD.

**(i) Replacement**

For airplanes identified in section 1.A. “Effectivity,” of Bombardier Global 5000 Service Bulletin 700-1A11-52-023, dated October 4, 2013; or Bombardier Global Express/Global Express XRS Service Bulletin 700-52-046, dated October 4, 2013; except as provided by paragraph (j)(1) or (j)(2) of this AD: Within 15 months after the effective date of this AD, but not exceeding the applicable life limit of the passenger tensator spring, replace the passenger door tensator springs having part number (P/N) GS321-0580-1, with new springs, in accordance with the Accomplishment Instructions of Bombardier Global 5000 Service Bulletin 700-1A11-52-023, dated October 4, 2013; or Bombardier Global Express/Global Express XRS Service Bulletin 700-52-046, dated October 4, 2013; as applicable.

**(j) Acceptable Alternative Actions for Paragraph (i) of this AD**

(1) For airplanes having serial numbers (S/N) 9278 through 9360 inclusive:  
Replacement of the passenger door tensator springs having P/N GS321-0580-1 with new

springs before the effective date of this AD is acceptable for compliance with the requirements of paragraph (i) of this AD. Refer to the task specified in the applicable TRs identified in paragraphs (g)(1) through (g)(4) of this AD for subsequent spring replacements.

(2) For airplanes with serial numbers not identified in paragraph (j)(1) of this AD: Accomplishment after the effective date of this AD of the “Time Limits/Maintenance Checks” discard task identified in the applicable service information specified in paragraphs (g)(1) through (g)(4) of this AD is acceptable for compliance with the requirements of paragraph (i) of this AD.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the New York ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(l) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2014-39, dated November 4, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-3989.

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone: 514-855-5000; fax: 514-855-7401; email: [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 19, 2016.

Dorr M. Anderson,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.  
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